What is claimed is:

1. A management system comprising a printing machine, a management apparatus and a maintenance terminal connected to one another over an external network, wherein

5   said printing machine generates use information indicating contents of a printing operation and transmits said generated use information to said management apparatus, and

said management apparatus receives said use information sent from said printing machine, discriminates whether preventive

10   maintenance for said printing machine is needed or not in accordance with said received use information, and transmits instruction information instructing preventive maintenance to said maintenance terminal when it is discriminated that said preventive maintenance is needed.

15   2. The management system according to claim 1, wherein said use information generated by said printing machine includes number-of-printouts information indicating a number of sheets printed by said printing operation, and

said management apparatus memorizes a threshold value of a

20   predetermined number of printouts in association with said printing machine, and discriminates whether or not preventive maintenance for said printing machine is needed based on a quantity indicated by said number-of-printouts information included in said use information received by said management apparatus and said

25   threshold value memorized by said management apparatus.

3. The management system according to claim 1, wherein said management apparatus memorizes maintenance field information indicating a field of maintenance which is carried out by a maintenance person who uses a maintenance terminal, specifies said

5 maintenance terminal of said maintenance person who maintains said printing machine, when it is discriminated that said preventive maintenance is needed, based on contents of said preventive maintenance discriminated as necessary and said maintenance field information, and transmits instruction information to said specified

10 maintenance terminal.

4. A management system comprising a printing machine, a user terminal, a management apparatus, a substitute printing machine and a maintenance terminal connected to one another over an external network, wherein

15 said printing machine generates trouble information indicating contents of a trouble occurred and transmits said generated trouble information to said management apparatus, and

said management apparatus receives said trouble information sent from said printing machine, discriminates whether urgent

20 maintenance for said printing machine is needed or not in accordance with said received trouble information, transmits substitution information of said substitute printing machine to be a substitute output destination to said user terminal which is using said printing machine, when it is discriminated that said urgent maintenance is

25 needed, and transmits instruction information instructing collection

of a target print to be printed by said substitute printing machine and
urgent maintenance to said maintenance terminal in accordance with
transmission of said substitution information.

5. The management system according to claim 4, wherein said
management apparatus memorizes, beforehand, a driver program
which is to be run by said printing machine, and installs said driver
program in said user terminal.

6. The management system according to claim 4, wherein said
management apparatus memorizes maintenance field information
indicating a field of maintenance which is carried out by a
maintenance person who uses a maintenance terminal, specifies said
maintenance terminal of said maintenance person who maintains said
printing machine, when it is discriminated that said urgent
maintenance is needed, based on contents of said urgent maintenance
discriminated as necessary and said maintenance field information,
and transmits instruction information to said specified maintenance
terminal.

7. A machine management apparatus which is connected to an
external printing machine and an external maintenance terminal over
an external network and has:

a communication control device that receives use information
sent from said printing machine; and

a processor that discriminates whether preventive maintenance
for said printing machine is needed or not in accordance with said use
information received by said communication control device, and

generates instruction information instructing preventive maintenance to said maintenance terminal when it is discriminated that said preventive maintenance is needed,

whereby said communication control device transmits said instruction information to said maintenance terminal.

8. The machine management apparatus according to claim 7, further having a memory which stores maintenance field information indicating a field of maintenance which is carried out by a maintenance person who uses a maintenance terminal, and wherein

when having discriminated that said preventive maintenance is needed, said processor specifies said maintenance terminal of said maintenance person who maintains said printing machine, based on contents of said preventive maintenance discriminated as necessary and said maintenance field information, and

said communication control device transmits instruction information to said specified maintenance terminal.

9. A machine management apparatus which is connected to an external printing machine, an external user terminal, an external substitute printing machine and an external maintenance terminal over an external network and is comprised of:

a communication control device that receives trouble information sent from said printing machine; and

a processor that discriminates whether urgent maintenance for said printing machine is needed or not in accordance with said trouble information received by said communication control device,

generates substitution information of said substitute printing machine, which is to be a substitute output destination and is to be transmitted to said user terminal which is using said printing machine, when it is discriminated that said urgent maintenance is needed, and generates instruction information instructing collection of a target print to be printed by said substitute printing machine and urgent maintenance in accordance with transmission of said substitution information,

whereby said communication control device transmits said substitution information to said user terminal which is using said printing machine and transmits said instruction information to said maintenance terminal.

10. The machine management apparatus according to claim 9, further having a memory which stores maintenance field information indicating a field of maintenance which is carried out by a maintenance person who uses a maintenance terminal, and wherein

when having discriminated that said urgent maintenance is needed, said processor specifies said maintenance terminal of said maintenance person who maintains said printing machine, based on contents of said urgent maintenance discriminated as necessary and said maintenance field information, and

said communication control device transmits instruction information to said specified maintenance terminal.

11. A maintenance work instructing method in an apparatus connected to a printing machine, a user terminal, a substitute printing machine and a maintenance terminal over a network, comprising:

a use information receiving step which receives use information sent from said printing machine;

a discrimination step which discriminates whether preventive maintenance for said printing machine is needed or not in accordance

5   with said use information received in said use information receiving step; and

an instruction information transmitting step which transmits instruction information instructing preventive maintenance to said maintenance terminal when it is discriminated in said discrimination

10   step that said preventive maintenance is needed.

12. A maintenance work instructing method in an apparatus connected to a printing machine, a user terminal, a substitute printing machine and a maintenance terminal over a network, comprising:

a trouble information receiving step which receives trouble

15   information sent from said printing machine;

a discrimination step which discriminates whether urgent maintenance for said printing machine is needed or not in accordance with said trouble information received in said trouble information receiving step;

20   a substitution information transmitting step which transmits substitution information of said substitute printing machine to be a substitute output destination to said user terminal which is using said printing machine, when it is discriminated that said urgent maintenance is needed; and

25   an instruction information transmitting step which transmits

instruction information instructing collection of a target print to be printed by said substitute printing machine and urgent maintenance to said maintenance terminal in accordance with transmission of said substitution information in said substitution information transmitting

5   step.

13. A computer readable recording medium having a program recorded therein that allows a computer having a communication control device to function as a machine management apparatus which is connected to an external printing machine and an external

10   maintenance terminal over an external network and which:

receives use information sent from said printing machine;

discriminates whether preventive maintenance for said printing machine is needed or not in accordance with said use information received by said communication control device, and generates

15   instruction information instructing preventive maintenance to said maintenance terminal when it is discriminated that said preventive maintenance is needed; and

transmits said instruction information to said maintenance terminal.

20   14. A computer readable recording medium having a program recorded therein that allows a computer having a communication control device to function as a machine management apparatus which is connected to an external printing machine, an external user terminal, an external substitute printing machine and an external

25   maintenance terminal over an external network and which:

receives trouble information sent from said printing machine;

discriminates whether urgent maintenance for said printing machine is needed or not in accordance with said trouble information received by said communication control device;

5   generates substitution information of said substitute printing machine, which is to be a substitute output destination and is to be transmitted to said user terminal which is using said printing machine, when it is discriminated that said urgent maintenance is needed;

generates instruction information instructing collection of a

10   target print to be printed by said substitute printing machine and urgent maintenance in accordance with transmission of said substitution information;

transmits said substitution information to said user terminal which is using said printing machine; and

15   transmits said instruction information to said maintenance terminal.

15. A computer data signal buried in a carrier and expressing a program that allows a computer having a communication control device to function as a machine management apparatus which is

20   connected to an external printing machine and an external maintenance terminal over an external network and which:

receives use information sent from said printing machine;

discriminates whether preventive maintenance for said printing machine is needed or not in accordance with said use information

25   received by said communication control device, and generates

instruction information instructing preventive maintenance to said

maintenance terminal when it is discriminated that said preventive

maintenance is needed; and

transmits said instruction information to said maintenance

5   terminal.

16. A computer data signal buried in a carrier and expressing

a program that allows a computer having a communication control

device to function as a machine management apparatus which is

connected to an external printing machine, an external user terminal,

10   an external substitute printing machine and an external maintenance

terminal over an external network and which:

receives trouble information sent from said printing machine;

discriminates whether urgent maintenance for said printing

machine is needed or not in accordance with said trouble information

15   received by said communication control device;

generates substitution information of said substitute printing

machine, which is to be a substitute output destination and is to be

transmitted to said user terminal which is using said printing machine,

when it is discriminated that said urgent maintenance is needed;

20   generates instruction information instructing collection of a

target print to be printed by said substitute printing machine and

urgent maintenance in accordance with transmission of said

substitution information;

transmits said substitution information to said user terminal

25   which is using said printing machine; and

transmits said instruction information to said maintenance terminal.